IMPLEMENTATION OF ATTENTION TO DIVERSITY IN CLIL: ATTENTION TO STUDENTS WITH AUTISM

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ABSTRACT

This Master’s Dissertation focuses on a topic of great interest at present, namely attention to diversity in Content and Language Integrated Learning (CLIL). Its main objective is to offer an example of programming a lesson plan for a student with autism as well as to explain the different types of adaptations that a child with that diagnosis may need when learning a Foreign Language (FL). Firstly, the concepts “attention to diversity” and “special educational needs” are defined. Then the main characteristics of a specific disorder such as autism are analysed. Finally, explanations about the needs presented by children with autism in a bilingual classroom are provided. Moreover, all these ideas will be illustrated by means of the above-mentioned lesson plan designed for the area of Natural Sciences and a curricular level of the 1st cycle of Primary Education (PE).

Keywords: CLIL, attention to diversity, special educational needs, autism, TEACCH learning methodology, Primary Education.

RESUMEN

Este Trabajo Fin de Máster (TFM) se centra en un tema que actualmente genera un gran interés: la atención a la diversidad en el Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE). Su principal objetivo es presentar un ejemplo de programación didáctica dirigida a un estudiante con autismo, al mismo tiempo que se explican los diferentes tipos de adaptaciones que el alumnado con este diagnóstico puede necesitar para aprender un idioma extranjero. Primero, se definen los términos “atención a la diversidad” y “necesidades educativas especiales”. Después, las principales características de un trastorno específico como es el autismo son analizadas. Finalmente, se explican las necesidades que presenta el alumnado con autismo en un aula bilingüe. Además, todas estas ideas se ejemplificarán a través de la precitada unidad didáctica diseñada para el área de Ciencias Naturales y un nivel curricular de primer ciclo de Educación Primaria (EP).

Palabras clave: AICLE, atención a la diversidad, necesidades educativas especiales, autismo, metodología de aprendizaje TEACCH, Educación Primaria.
1. INTRODUCTION

1.1. Justification

Special children do not expect to be cured but to be understood. However, throughout my experience as a Primary Education (PE) and Compulsory Secondary Education (CSE) teacher, I have found myself with dozens of children misunderstood in the classrooms for having some kind of special educational need; children isolated in a corner who were given some toy to be entertained and “not to bother” their peers. I would like to think that the reason for these situations is some teachers’ lack of training.

Currently, I am a teacher specialized in therapeutic pedagogy (TP) working in a PE/CSE school and my main concern is not only to get that no child feels left out in the classroom but also that all students receive a quality education adapted to their needs.

I have had the opportunity to work in several bilingual schools in Andalusia and in all of them I have found the above-mentioned situation, but I could understand that introducing a new language to a group of students can be a complicated task and, even more so, if there is (at least) a student in the class who has personal characteristics for which we do not have enough training to deal with. Moreover, if we search the internet for information on the subject, we will find only a few reports on it.

For all these reasons, I have decided to focus attention on CLIL teaching for students with special educational needs, programming a lesson plan directed to a group of students with autism. I have focused on this disability because I consider that, due to its characteristics, it is one of the special educational needs which can suppose great difficulties for bilingual teachers when planning their classes.

1.2. Goals of the Master's Dissertation

In this section the different objectives this MD pretends to reach will be identified. Specifically, a distinction is drawn between a general objective and several specific ones.

First of all, its general objective is to make teachers aware of the need to establish adequate measures for attention to diversity in CLIL teaching for students with special educational needs.

Secondly, the specific objectives are included below:
1. To carry out a review of the literature dealing with the CLIL studies which have been done so far on attention to diversity and inclusive education, on the one hand, and on the care of students with special educational needs in general and, specifically on students with autism, on the other hand.

2. To define autism and explain the main difficulties presented by students with this diagnosis.

3. To establish the types of adaptations needed by children with autism in the class, both in terms of content and access to information as well as methodology.

4. To design a CLIL lesson plan of Natural Sciences aimed to a student with autism who is in the 4th grade of PE and studies with a significant curricular adjustment in the subject.

5. To conclude the dissertation with a discussion of the most important ideas, giving an optimistic view on the treatment of special educational needs in CLIL.

1.3. Structure of the Project

The structure of this MD has three different parts. Firstly, the theoretical framework includes a bibliographic review of the relevant concepts in the area, that is, attention to diversity, inclusive education, and special educational needs in CLIL, together with a brief historical analysis of the evolution of attention to diversity.

The review focuses, next, on autism and its main characteristics, detailing the needs students with this diagnosis can present in the bilingual classroom regarding their social interaction, language and behavior. At this point, it is also important to provide information on the adaptations which can be made to a child with autism, not only at the classroom level but in the whole school.

In addition, the Treatment and Education of Autistic related Communication Handicapped Children (TEACCH) methodology is explained. This is specifically aimed at students with autism and that, on the one hand, provides children with this special educational need with enormous benefits and, on the other, greatly facilitates the task of bilingual teachers, since it focuses on improving the communication of children with autism.

Once the previous concepts are explained, a lesson plan for Natural Sciences is included as the main section in the MD. This is aimed at a student with autism, who
serves as an example for teachers on how to program for children with autism using such a methodology.

Finally, there is a discussion on the topic and the main ideas which must be taken into account to teach a FL to children with special educational needs.

2. LITERATURE REVIEW

2.1. Attention to diversity

Attention to diversity is a broad concept which includes the difficulties of learning, physical, mental and sensory disabilities, risk groups, ethnic minorities, etc. Diversity is an observable reality, inherent in being human, which has always existed. However, the connotations which are socially attributed to it and the political and educational consequences that derive from it are new.

Ruiz Quiroga (2010:2) stated that the concept of diversity suggests all students have their own educational and specific needs to access the learning experiences necessary for their socialization, which are established in the school curriculum. These individual educational needs have their origin in the cultural, social, gender, and personal differences. Many students experience difficulties in learning and participation in school because teachers do not know how to cope with these differences, as a consequence of the homogenizing model of most educational systems.

Although nowadays any teacher knows one of the main supports of education is attention to diversity, this was not always the case. In fact, in the 18th and 19th centuries, people with some type of disability were confined in asylums and excluded from education.

In the 20th century, Binet created the first intelligence test, but this instrument was used to separate students according to their intellectual capacity. There was no radical change to this situation until Marchesi emphasized that “the deficiency may be motivated by the absence of adequate stimulation or by incorrect learning processes” (2002:24). This affirmation contributed to the fact that disability was viewed from another point of view: the exclusion model was abandoned, the attention to people with disabilities appeared and a new model was assumed.

In Spain, this new concept of education did not arrive until the 70s, thanks to two main facts:
1. Promulgation of the General Education Law 14/1970 of August 6th, thanks to which special education joins the ordinary educational system allowing the creation of special education classrooms in ordinary schools.

2. The publication of the Warnock report (1981) in England supposed a turning point in the conception of integration. This report is named in honour of the president of a committee researcher created in England to analyse the special education system in the country and whose work lasted between 1974 and 1978. These four years of meetings resulted in the publication of the mentioned report, among whose most important affirmation is the fact that there is no longer talk about deficient children who should receive a special education at schools or in classrooms designed specifically for them as it was coming doing up to that moment, but should start talking about students who present special educational needs.

From that moment on, the diagnosis labelling of the students is avoided and it is beginning to be understood that special education does not revolve exclusively around students with deficiencies but it starts to be considered that special education is the set of educational measures and material and human resources which must be offered to all students so that they achieve the proposed academic and personal objectives (there is no segregation, work is done for educational integration).

Logically, the change that implies the acceptance of the assumptions included in the Warnock Report in Spain began to be reflected on the educational legislation very soon. In 1985, the Royal Decree of Regulation of Special Education appeared, which introduces the concept of “special educational needs” instead of “students of special education”.

In 1990 the Law of General Regulation of the Educational System incorporates definitively the concept of “students with special educational needs” to refer to that group of students who present more learning difficulties than other students at some point throughout their schooling and that, therefore, requires more specific attention and greater educational resources than their peers. Finally, the Organic law of education 2/2006 (LOE) defined the concept of “Specific Needs for Educational Support”.

The current education Spanish law, LOMCE (2013), in its article 1, establishes equity as one of the main objectives in education, which guarantees equal
opportunities for the full development of the personality through education, educational inclusion, equal rights and opportunities which help to overcome any discrimination and universal accessibility to education, and it acts as a compensating element of personal, cultural, economic and social inequalities, with special attention to those which derive from any type of disability.

The European Commission (2010:7), arranged that the improvement of education levels should also be directed to students with disabilities, who will be guaranteed an inclusive and quality education. To this end, the International Convention on the Rights of Persons with Disabilities (United Nations, 2006), in force and fully applicable in Spain since May 2008, will be taken as a frame of reference.

According to all the ideas mentioned above, the need to establish mixed-ability teaching is clear, defined by Dicenlen dictionary as:

... the type of teaching which takes into account in a preferred way the individual differences of learning which may exist within the same group of students. These differences may be determined by learning factors such as motivation, personality, intelligence and the aptitude of the student, as well as by possible existence of different levels of knowledge among students. The teacher, as far as possible, should introduce into his/her teaching methodologies to take care of diversity through activities which can make both the most advanced and the least advanced students, and techniques which are consistent with the psycho-pedagogical profile of the majority of the students of the class. (Palacios Martínez et al, 2019)

2.2. Inclusive education

2.2.1. Definition

A priori, it might be thought inclusive education refers to students who need specific support for presenting some type of difficulty, for their high intellectual abilities, for having joined the educational system late or for having personal or school history conditions which require different educational attention from the usual one. Therefore, it would refer to students with specific educational support needs.

However, “inclusion” encompasses more than “integration”. This last term was used for the first time in educational contexts in 1985 to integrate in ordinary schools
those students who were enrolled in specific schools, which represented a great advance from the point of view of disability, but only guaranteed access, not an equitable and quality education.

UNESCO (2008: 9) defines inclusive education as the process of identifying and responding to the diverse needs of all students through greater participation in learning, cultures and communities, and reducing exclusion in education”. It involves changes and modifications in contents and methodologies, with a vision that includes all children, of the appropriate age range, and the conviction that it is the responsibility of the regular system to educate all children.

It is based on the principle that each child has different characteristics, interests, abilities, and learning needs which must be detected and attended by educational systems.

Far from referring to the integration of students in the educational curriculum, it is a method which reflects on how to transform the educational system so that it responds to the diversity of students.

Thus, the inclusive school responds to the right of every child, without any distinction, to a quality education which contributes to their integral education, because the important element are the students themselves and not so much the pedagogical objectives, accomplishing the curriculum or the grades they get.

Definitely, inclusive school is a transformative bet to ensure that education adapts and gives answers to the characteristics of all its students and their environment. Inclusive education, therefore, promotes the use of active methodologies and new technologies, as well as organizational and structural changes in order to provide a quality educational response to all students.

2.2.2. Principles of inclusive education

Booth, Aiscow, Black-Hawkins, Vaughan and Shaw (2002:18) affirm that inclusive education is based on the conviction that all children can learn when they are given the appropriate learning opportunities, individualized learning is planned, support teams are created, social skills and responsibilities are stimulated among children, infant programs performance is evaluated, the transition from one stage of education to the next is planned, parents and other members of the community collaborate with the school, and teachers receive the proper training.
New Brunswick (1994:1), in his document of good practices, pointed out the principles on which inclusive education is based, which are reaffirmed by other authors such as Raymond (1995):

1. All children can learn.
2. All children attend ordinary classes, with peers of the same age, in their local schools.
3. All children have the right to participate in all aspects of school life.
4. All children receive appropriate educational programs.
5. All children receive a curriculum relevant to their needs.
6. All children receive the support they need to guarantee their learning and participation.
7. All children participate in curricular and extra-curricular activities.
8. All children benefit from collaboration and cooperation between their home, school and community.

The Special Education Unit of Saskatchewan (2001: 12) mentions the following as indicators of a philosophy of inclusive education:

- Individualized and student-centered programming.
- Educational responsibility is shared with students' families.
- Education occurs with partners of appropriate age who do not have disabilities.
- The educational goals are functional for the life and the future of the particular student.
- The use of natural and non-intrusive teaching methods.
- The provision of instructions in multiple environments such as classrooms, other school environments, the home, the community.
- Integration of complementary services and types of instruction.

### 2.2.3. Characteristics of an inclusive school

Inclusioneducativa.org (2006) defines an inclusive school as the one in which everyone is accepted and supported by their peers and other members of the school community in the way of getting response to their educational needs. In an inclusive school, teachers, students and parents:
• Know that all children belong as part of the educational community.
• Emphasize the learning of all students.
• Provide equal opportunities for all students.
• Recognize the value of all people.
• See each person as a unique individual.
• Learn from and about people with diverse characteristics.
• Work together in the school to solve problems.
• Share the responsibility of all students.

An Inclusive School Culture-Indicators of Success (2005), cited by McMaster (2012: 18), identified some characteristics as important within a school. Firstly, the learning experiences are flexible and focus on the individual student (his/her strengths and capacities), so the teaching of the curriculum is adjusted to the needs of each student. Secondly, there are supports and these are used appropriately (teachers are supported in the classroom and students are provided with the appropriate support they require for their full participation). Thirdly, diversity is welcomed so the differences are respected and valued and friendships are promoted. Fourthly, there should be an innovative and creative environment which promotes that everyone takes risk, questions and challenges what exists. Finally, both teachers and students work under a collaboration model.

2.3. Special educational needs in CLIL

2.3.1. Definition of “CLIL”

Cenoz, Genesee and Gorter (2014) performed a critical analysis on the CLIL approach for which they reviewed the most relevant definitions which have been proposed for the term. CLIL is defined as "a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language" (Coyle et al., 2010:1). According to this definition, it is deduced that "both language and the subject have a joint role" (Marsh, 2002:58). The double role of language and content has been understood in different ways. According to Ting (2010:3), "CLIL advocates a 50:50/Content: Language CLIL-equilibrium”, but many of the researches that have been conducted in real classrooms show that it is
impossible to achieve that strict balance of language and content (Dalton Puffer, 2007; Mehisto, 2008, Pérez Vidal & Juan-Garau, 2010). According to Marsh (2002), there should always be a double focus on the language and content of instruction to qualify as CLIL, even if the proportion is 90% compared to a 10%.

Coyle et al. (2010:1) have defined CLIL as an "educational approach". However, many experts define CLIL based on specific instructional techniques and practices used in classrooms to promote the learning of the L2 or FL (Ball & Lindsay, 2010; Hüttner & Rieder Bünemann, 2010). Another definition of CLIL with reference to the curriculum establishes the relationship between language and content so that it can take the form of a theme or a project, which does not necessarily mean the use of an additional language as a means of instruction for all school subjects, as Coyle (2007) has explained.

2.3.2. Definition of “special educational needs”

It is necessary to draw a distinction between students with special educational needs and students with specific educational support needs. They are two concepts which come from the LOE (2006), in its articles 71 to 79, and that have been partially modified by the LOMCE (2013), in section 57. Each concept will be explained below, together with the differences between them, and the practical implications they may involve.

On the one hand, students with special needs for educational support refer to those who require educational attention different from the ordinary one, for presenting special educational needs, specific learning difficulties, Attention and Hyperactivity Disorder, high intellectual abilities, for having joined the educational system late, or due personal conditions or school history.

On the other, students with special educational needs are students who require, either in a period of their schooling or throughout it, specific supports and specific educational attention derived from disability or serious disorders of behavior.

What relationship does exist between both concepts? Special educational needs are included and are part of the specific educational support needs, that is, all special educational needs are also specific educational support needs, but not all of the specific educational support needs are special educational needs.
What is the difference between them? The specific educational support needs require a psychopedagogical report and the special educational needs require this report plus the schooling judgement.

Students with specific educational support needs are always in school modalities within an ordinary school, while students with special educational needs also have the special education school modality and the combined modality.

Whereas students with special educational needs usually have an individualized and significant curricular adaptation, students with specific educational support needs tend to have a non-significant adaptation, with the same objectives and evaluation criteria as the rest of the students in the class.

The promotion of students with specific educational support needs follows the same promotion criteria as the rest of the students of their level, while students with special educational needs, in order to promote or not to do so, follow two clear criteria: if it is beneficial for their social inclusion and if the permanence one more year guarantees the achievement of the general objectives of the stage.

The provision of specialized support resources depends on the number of students with special educational needs enrolled in the school.

2.3.3. Overview of special educational needs in CLIL

From the bibliographical research carried out into CLIL, the lack of attention given to diversity in the studies carried out so far has been revealed. Bueno López (2016:32) evidences the need to include it in future research, taking into account, in addition, attention to diversity does not refer only to students with disabilities.

The organization of a school must guarantee activities which allow the participation of all the members of the educational community, considering attention to diversity and the inclusion of all students.

The educational action must be guided by the principle of attention to diversity and should be included in the educational and curricular project of the school. It is also important to establish meetings for teacher coordination, flexible groupings of students, effective and creative use of available resources and a dynamic active and participative style of management that introduces continuous improvements in the teaching and learning process (Araque Hontangas & Barrio de la Puente, 2010:5).

Like other teachers, bilingual ones must carry out a program which takes into account all the students’ needs of and the answer given to them must be flexible:
they will be evaluated throughout the process and the necessary changes will be carried out. When the characteristics of a student require it, parts of the official curriculum may be eliminated and replaced by non-curricular objectives to work in the best possible way according to the student’s needs. Teachers will have the freedom to suppress, add, modify and prioritize contents, concepts, procedures and attitudes (Ortega Martín, 2004: 124).

One of the processes that poses the most difficulties for a bilingual teacher is the evaluation of students with special educational needs. It does not make any sense to have a programming which adapts contents or methodologies, but that uses the same evaluation criteria and procedures as for the rest of the class. The Decree 97/2015, of March 3, which establishes the ordination and curriculum of PE in the Autonomous Community of Andalusia includes, in articles 16, 17 and 18, important aspects regarding the evaluation of students with special educational needs in PE.

The first action to be taken when it is detected that a student is not able to follow the ordinary curriculum is the educational reinforcement, without making any adaptation, focusing on those contents with which the student is having difficulties. This measure will be planned and carried out by the teacher of the subject or, if there is one, by the reinforcement teacher.

If the first action does not achieve an effect, a curricular adjustment should be done. It is an adaptation of the curriculum to the needs, interests and characteristics of a school or a group of students. More specifically, the Spanish educational system refers to curricular adjustment as the adaptation of the basic curricular design to the individual and diverse characteristics of schools and students through the different levels of concretion. For example, a general measure of curricular adjustment of attention to diversity in CSE would be the offer of elective subjects of each high school. In a specific sense, the curricular adjustments are pedagogical strategies which consist of the modification, by the teacher or the teaching team, of one or several elements of the programming (fundamentally objectives, contents, teaching-learning activities, or assessment activities) according to the students’ interests, needs or abilities.

Bueno López (2016) made a literature review of the research which has been carried out on attention to diversity in CLIL and provides several guidelines which should be followed in the classroom with students who present some educational need. Two main types of curricular adjustments are recognized: timing and
prioritization. The former consists of altering in a more or less significant way the term provided for the achievement of the same objectives. For example, for a student or a group of students the objective of initiation to written communication in the FL area could be delayed from the second to the third cycle of PE.

The latter implies a reorganization of objectives, contents or areas of the common curriculum, integrating, eliminating or rejecting any of them either temporarily or permanently. The extreme case of prioritization consists in the elimination or introduction of certain contents and objectives for students with special educational needs, that is, students whose deficiencies or learning difficulties come from personal limitations, whether physical, mental or sensory. For example, the modification of the objectives and contents of the FL area which refer to the comprehension and written production would be pertinent in the case of students with dyslexia.

When a student with special educational needs, who has a greater gap of two years in some area, is made an individualized programming which includes changes in objectives and evaluation criteria, it would be considered as a significant curricular adjustment. This adaptation will be planned by the specialist teacher in TP, even if the teacher of the bilingual area carries it out in the classroom.

In an ordinary classroom there will be a diversity of students, different levels and needs; therefore, the materials should be adjusted to each situation. In the case of students with special educational needs, the main difficulty for many of them is in the communicative area, so alternative methods to oral language should be considered as a means of communication. Here, the participation of the family could also be included, so that FL learning is not only carried out in the school, but also takes place in other contexts. Thus, the student’s participation will be facilitated in their peer group and in society. For this purpose, it is also necessary that students spend as much time as possible in the ordinary classroom, with a support teacher if necessary, limiting the time spent in the integration classroom to the development of those objectives which cannot be carried out in a group.

The types of methodologies which exist for FL teaching are numerous and the best option is not to opt for one, but to have different options programmed to adapt to the diversity of students. In order to respond to diversity in bilingual classrooms, it is necessary to put into practice a methodology which adapts to all students, using as many different methods as necessary.
On the one hand, there are general measures which can be put into practice in sessions such as promoting students’ action and participation, the use of new technologies, gamification, learning by projects, classroom distribution in specific “corners” and cooperative learning. It is convenient that teachers pose each activity with different levels of difficulty and children could work both individually and in pairs. Thus, a role according to each student’s abilities is facilitated.

On the other hand, there are more specific measures which are adapted to a particular student’s needs, such as the use of augmentative and alternative communication systems for deaf students, the use of braille for blind students, manufacturing of manipulative materials based on the students’ interests with a generalized disorder of development, flexible schooling for students with high abilities, etc. For this, bilingual teachers will have the help of the specialist teacher in TP, the reference counselor, and any other specialist who is needed.

CLIL materials are cognitively very demanding for students because they have to learn the contents in a FL, so teachers must ensure that the materials they use motivate students and contribute to the acquisition of meaningful learning. In addition, the content and illustrations of the materials should avoid prejudices and stereotypes that incite social class, gender, ethnic, cultural, lifestyle or racial prejudice; in this way, they will help students to favor inclusion and avoid prejudices (Mehistó, 2012:17).

In addition, it should not be forgotten the role of the FL assistant, who should improve the students’ understanding and expression in other languages, disseminate information about their culture, and collaborate in the care of students with special educational needs.

As for the organization of spaces and times, it will be favored that they contribute to the realization of movement activities and group work, ensuring no child feels excluded from the other classmates. Our objective must be all students develop the same linguistic abilities, even if the level of achievement is different in each case.

Foghram (2006) affirmed that schools should promote equality and help each student benefit from education as much as possible, ensuring that bilingual students have full access to the general curriculum and are given the opportunity to learn alongside English speakers (either native teachers or Spanish bilingual teachers) (cited by Bueno López, R., 2016: 40).
2.4. Autism

2.4.1. Definition

The term “autism” was used for the first time to refer to a disorder of thought that appears in some schizophrenic patients. It was really the psychiatrist Leo Kanner (1943) the pioneer in rescuing it to label the alterations he observed in a group of eleven children which he described with great success and precision. These alterations did not correlate with any known diagnosis and differed from the rest of the psychopathological alterations described until then in children.

The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) (2014: 28-29) highlights the following five diagnostic criteria for autism:

A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested in the following symptoms, current or past:
   1. Deficits in socio-emotional reciprocity.
   2. Deficits in non-verbal communicative behaviors used in social interaction.
   3. Deficits to develop, maintain and understand relationships.

B. Repetitive and restricted patterns of behaviors, activities and interests, which manifest themselves in at least two of the following symptoms, current or past:
   1. Steering motions, use of objects or stereotyped or repetitive speech.
   2. Insistence on equality, inflexible adherence to rituals or ritualized verbal and non-verbal behavior patterns.
   3. Highly restricted, obsessive interests, which are abnormal by their intensity or focus.
   4. Hyper/hypo sensory or reactivity or unusual interest in sensory aspects of the environment.

C. Symptoms must be present in the early development period (although they may not be fully manifested until the demands of the environment exceed the child’s abilities or may be masked later in life by learned skills).

D. Symptoms cause clinically significant alterations at social, occupational or other important areas of current functioning.
E. These alterations are not better explained by the presence of an intellectual disability (intellectual development disorder) or a global developmental delay.

2.4.2. Special educational needs presented by students with autism

Starting from the concept of special educational needs described above, throughout this section the needs students with autism often present will be described, classifying them into the three large areas in which all the alterations children with this diagnosis present can be grouped:

a) Social relations.

b) Communication and language (where symbolization problems are included).

c) Restricted or stereotyped behavior patterns, interests and activities.

2.4.2.1. Special educational needs related to problems in social interaction

- They need to increase their motivation to relate to others.
- They need to learn that their behaviors can influence the environment in a socially acceptable way, but it is necessary to teach them which behaviors are socially acceptable and which are not.
- They need to learn to relate, in a concrete and effective way, with others in different situations and contexts.
- They need to learn to know and communicate their own emotions and thoughts, as well as understand those of others.
- They need to develop motivations and knowledge regarding activities and topics of common interest.
- They need to develop their abilities of attention and joint action through interaction games and the use of the gaze to achieve their desires.

2.4.2.2. Special educational needs related to problems in language and communication

- They need to learn to understand and react to the demands of their environment.
- They need to learn functional communication skills in real life.
- They need to learn request behaviors, especially those carried out through signs or oral language.
• They need to learn a communicative code (verbal or non-verbal), especially with an interactive purpose.
• They need complementary codes to the oral language to express wishes (children with mutism).
• They need to develop the lexicon and the construction of sentences without echolalia (children with oral language), which is the repetition of words or phrases they have just heard.
• They need communication with a protodeclarative function (children with greater communicative development).
• They need to learn to initiate and maintain conversational exchanges with others, adjusting to the basic rules that make such exchanges possible (eye contact, facial expression, tone, volume, etc.).
• They need to expand the comprehensive vocabulary, the interpretation of expressive subtleties, metaphors, and so on.
• They need to learn to use objects functionally and creatively.
• They need to receive stimulation for the appearance and development of the symbolic game.
• They need to develop the ability to imitate as a learning vehicle.

2.4.2.3. Special educational needs related to patterns of behavior, activities and stereotyped interests

• They need a structured and directive educational context, prioritizing in it the functional contents, and adjusted to the students’ competence level.
• They need specific and concrete educational situations which favor the generalization of learning.
• They need simple, uncomplicated environments that facilitate an adequate perception and understanding of them.
• They need predictable environments, with anticipatory keys that they must learn to interpret.
• They need to learn in contexts which are as natural as possible, to ensure generalization.
• They need to learn skills and strategies to control the environment and self-control.
• They need to de-focus a few stimuli and achieve "joint attention" with others.
• They need individualized educational situations.
• They need to expand the activities they carry out, as well as the interests they may have.
• They need to reduce motor stereotypes, rituals and obsessions by certain mental contents, offering functional alternatives of activity.

2.4.3. Adaptations for students with autism

The educational response which can be given to students with autism can be classified in several ways, depending on the organizational part of the curriculum it affects.

2.4.3.1. Considering those who affect

• School adjustments: those which are reflected on the school project and on the curricular concretion and affect all the students of the school. For example, pictograms (both with pictures and names in the FL) can be put on the information boards which are distributed throughout the building, so that the information is also available to students with autism.
• Classroom adjustments: they affect the needs of a group-classroom. An example would be to plan in the group where the student with autism is group dynamics or games where the interaction of that student with others is favored.
• Individual adjustments: they affect a specific student and they are reflected on the individual document of curricular adjustment. Programs of training in social skills or teaching of an alternative system of communication could be examples of these adjustments.

2.4.3.2. Considering the content

➢ Adjustments of access to the curriculum: they are modifications or provision of spatial, material or communication resources which will facilitate that pupils with special educational needs could develop the ordinary curriculum or, where appropriate, the adapted curriculum (CNREE, 1992: 20).

These adaptations can be subdivided into adaptations of:
• Physical access (organizational): students must be situated in the place of the classroom in which their difficulties are compensated to the maximum and in which they participate as much as possible in the dynamics of the class; avoid irrelevant stimulus to eliminate distraction factors; provide students with the specific equipment and material resources they need; systematically, the chosen communication system should be used.

It is quite effective to use pictograms with representations of the activities that will be carried out during the class, or on relevant events, so that students can anticipate what is going to happen. For example, put pictograms which indicate individual work, group work, watch a video, listen to an audio, photos of the teachers who will be in the class (subject teacher, FL assistant, pedagogue therapy teacher, etc.), so that students know the order of the activities that will be carried out and the people who are going to interact with them.

• Physical access (materials): due to these students’ educational needs, material resources have a special importance for educational intervention. The use of Information and Communications Technology (ICT) has many advantages for FL teaching to autistic students since they present a fundamentally visual stimulation; their capacity for motivation and reinforcement is usually very high, favoring attention and decreasing frustration with mistakes; they favor autonomous work and the development of self-control capacities; they adapt to the characteristics of each one, favoring different learning rhythms; they are an active learning element; activities between two students can be developed.

➢ Adjustments to access to communication: in most students with autism there is a delay in acquiring most of the skills of linguistic comprehension, the greatest alterations corresponding to the pragmatic and semantic aspects. The use of echolalia is also very striking because children repeat phrases of a complexity far superior to the linguistic competence they have, without communicative intention.

The intervention should be aimed at the expression of communicative intentions and the spontaneous and functional use of language. In order to fulfill this objective, the intervention should meet the following requirements: foster
spontaneity, ensure generalization, include relevant objectives at the functional level, form a linguistic competence, and adapt to the level of development.

➢ Properly curricular adjustments: they refer to the set of modifications which are made in the objectives, contents, criteria, and assessment procedures, activities and methodology to attend to the individual differences of the students (CNREE, 1992: 20). As explained in the previous sections, they can be either non-significant or significant.

On the one hand, non-significant curricular adjustments are defined as the modifications which are made in the different elements of the programming designed for all the students in a classroom to respond to individual differences, but which do not practically affect the basic teachings of the official curriculum. In the case of students with autism, it is necessary to program in a specific way what these students will need, breaking it down in the following steps:

- Before the activity: encourage motivation, ensure attention and understanding, give simple instructions with visual clues, and repeat individually when needed.
- During the activity: give the type and degree of help necessary and graduate the level of demand.
- After the activity: reinforce not only the achievement but also the effort.

In terms of curricular aspects, considering the alterations that many of these students present in the cognitive, language, communication, and social area, all educational interventions must be aimed at fulfilling the following objectives:

- Encourage social-emotional and communicative development in the FL, expand cognitive flexibility and stimulate functional activity and independence.
- Establish an intervention model for behavior problems.
- Stimulate special skills and areas of interest.

On the other hand, the significant curricular adjustments are the modifications which are made from the programming and imply the elimination of some of the basic teachings of the official curriculum: objectives, contents, and evaluation criteria. The reformulation of objectives with respect to language and communication is a priority, formulating new objectives which allow for communication with other codes than oral language, when necessary.
Sometimes, it will be necessary to introduce very specific objectives, such as those related to the use of alternative communication systems, or those related to the intervention in the alterations of behavior or the development of habits of autonomy.

In the educational intervention with these students some objectives often need to be prioritized, leaving others in the background. Logically, the prioritization will be on communication and language.

2.4.4. **TEACCH methodology**

2.4.4.1. **Definition**

TEACCH (Treatment and Education of Autistic and Communication Handicapped Children) methodology was created by Eric Schopler in the 70s for people with autism in any of its varieties. Schopler's primary objective was to prevent unnecessary institutionalization at that time in health care centers, so he taught children with autism to live and work in school, at home and in society in an effective way.

![Figure 1: TEACCH classroom](https://tinyurl.com/y4dmwilg)

The fundamental basis is a structured teaching with visual stimulation, that is, to adapt time, space and work methodology. In the photo above a graph of a teaching structured in a TEACCH classroom can be seen.
To carry out this methodology it is necessary that content teacher elaborates manipulative material adapted to the needs and interests of the students to whom it is addressed and it is important to design tasks in which there is no possibility of error, to minimize the frustration of the students.

This methodology provides numerous benefits for all students in the ordinary classroom, not only for the ones with autism as it provides autonomy, anticipates tasks and events, increases the understanding of all students in the classroom, improves special educational needs students learning, it organizes the accomplishment of the tasks, it improves the possible behavioural problems as well as the inclusion, the social skills, communication, attention and motivation.

2.4.4.2. Educational techniques

Four fundamental aspects must be followed when working with this methodology:

- Present the information with visual support: it can be worked from top to bottom and/or from left to right, like when reading.
- Use the concept of time: it is good to control time to avoid frustrations and to know that everything has a beginning and an end, in addition to speeding up the realization. The classroom can have a timer or an hourglass among others.
- Create flexible routines: facilitate understanding of tasks, the prediction of order, an adaptive but functional and flexible routine.
- Individualized work: thanks to individual work, autonomy is encouraged, as well as initiative, predisposition, motivation to learn on their own...

2.4.4.3. The classroom

The classroom must be organized by corners, with limited spaces, well defined and labelled. If the drawing above is seen again, it can be check that for example the area of the computer has the pictogram attached to it to know where it is, as well as the rest area for recess, the child eats and leaves, the same would be done with the areas of work, play, reading...

It is important to minimize the distractions of the classroom in a visual and auditory way, so it will be avoided having to redirect the activities and allow children to be more independent.
3. LESSON PLAN

3.1. Topic

This is a lesson plan from Natural Sciences subject. It is called “Living organisms and ecosystem” and the development of the unit follows this sequence of contents.

Firstly, student will review the difference between living and non-living things, content he has studied in the previous year.

Secondly, he will see two different kind of ecosystems and the living organisms within them.

Thirdly, student will learn about food chains and the importance of the balance of an ecosystem. He will classify animals depending on their diet.

Finally, he will study the changes which can happen within an ecosystem and the difference between changes that do and do not affect ecosystems, how humans impact ecosystems and what can be done to protect them.

3.2. Justification

In previous units, student has learnt the characteristics of animals and plants separately, so now is the time to know the relationships established between them in different ecosystems and, above all, to develop attitudes of respect and protection towards the natural environment.

The purpose of this unit is to provide an introduction to ecosystems, understanding the communities of living beings as part of a dynamic system in continuous change, in which can be described variations in the physical environment, in environmental conditions, in populations of animals and plants and with relationship to human beings.

The aim of this unit is also to help student become aware of the importance of caring for the environment and the role of human beings in ecosystems, both the negative changes produced by our super consuming character and of other positive ones, which aim to preserve ecosystems and natural places.

The contents of this unit are included in Decree 97/2015, of 3 March, which establishes the organization and curriculum of PE in the Autonomous Community of Andalusia and contributes to the acquisition of the key competences and the transversal contents established by the LOMCE (2013).
The unit is aimed at a student in the 4th year of PE who has a significant curricular adjustment in the subject of Natural Sciences, so the objectives, contents, methodology and assessment criteria have been adapted (some of them eliminated) in compliance with the answer the student needs, according to their characteristics and curricular level and in accordance with the Order of July 25, 2008, which regulates the attention to the diversity of students who attend basic education in public teaching schools of Andalusia and the Instructions of March 8, 2017, of the General Directorate of Participation and Equity, by which the detection protocol is updated, identification of students with specific needs for educational support and organization of the educational response.

In addition to the contents of the subject, in this unit we will contribute to develop the language skills of the FL (English) in the student. For it, the unit begins with the presentation of the main vocabulary so that the student becomes familiar with it, making use of oral and manipulative strategies.

The activities proposed throughout the unit are accompanied mainly by images and audio, providing the student with the necessary tools to recognize and express the characteristics and types of ecosystems and basic expressions in the new language, as well as consolidate the knowledge already acquired in his mother tongue. So, from the bilingual proposal is intended to give a double response, working on one hand the contents of the Natural Sciences using English as a vehicular language and on the other, the progressive development of the language skills (listening, spoken production, spoken interaction and writing). Reading skill has been eliminated since the student is not yet able to read.

**3.3. Contextualization**

If before carrying out any programming it is essential to know the context where work is to be carried out, when we speak of students with special educational needs, the context becomes even more important, because the maximum characteristics of the students must be known in order to carry out a program adapted to them.

In this case, the present lesson plan is aimed at an 11 years old boy who is in the 4th grade of Primary Education, but he presents a curricular level of 1st cycle of PE and attends with a significant adjustment in all areas. In the class there are twenty-five more students between 9 and 10 years old who show appropriate behavior and a good motivation towards all the activities which are proposed.
The student was diagnosed of autism during the Infant Education stage and the type of schooling he has is B, that is, an ordinary group with supports in varying periods. Due to his good behavior and the positive relationship with his classmates, he always studies in the ordinary classroom, and the TP teacher attends him there. In all sessions of Natural Sciences, the content teacher is accompanied, either by the TP teacher, either by the conversation assistant or by a monitor, so as to facilitate the implementation of the student’s curricular adjustment.

The personal, cognitive and communicative characteristics the student has, and which have been taken into account for the programming of this lesson plan are the following:

Firstly, student usually accepts the performance of activities in pairs with some of the children in the class, however, he is not able to perform group work. His behavior in the classroom is good, although sometimes he has hissy fits if someone remove any object he has.

Secondly, it is difficult for him to change of activity, so he needs to be always told at the beginning of the session about all the activities that will be done, through visual material. He is motivated by activities of visual and manipulative type and his focus of interest are animals and cartoons.

Thirdly, he is not able to maintain attention for long periods of time, so he needs frequent changes of activity. However, he presents a good memory capacity.

Fourthly, he responds very well to positive reinforcements of material type. There is a doll in the class which is his favourite toy and he is allowed to play with it when he works throughout the session.

Finally, he is working through TEACCH methodology since he started Primary Education. He does not have oral language, but he communicates himself with his communication notebook. His oral expression is limited to the repetition (sometimes) of single words. Since the last academic year, he has begun to express communicative intention to ask for objects, to demand to go to the toilet and to answer some of the questions we asked him.

3.4. Objectives

3.4.1. Learning outcomes

The objectives of this lesson plan refer to the achievements the student must reach at
the end of the educational process, as a result of the teaching-learning experiences intentionally planned for that purpose. They are an adaptation of the learning objectives collected in the Royal Decree 126/2014, of February 28, which establish the basic curriculum of PE and the Order of March 17, 2015, by which the curriculum corresponding to PE in Andalusia is developed.

The learning outcomes of this unit are:
1. To classify living things (animals and plants) and non-living things.
2. To differentiate living beings according to their diet.
3. To know different types of ecosystems.
4. To classify living beings according to the ecosystem where they live.
5. To establish simple food chains
6. To manifest values of responsibility and respect towards the environment.
7. To show active behavior towards the conservation, respect and care of living beings and their habitat.
8. To learn individual behaviors which improve the quality of life in Andalusian ecosystems.
9. To analyze the actions performed daily by human beings towards the environment.

3.4.2. Teaching outcomes

They are guidelines because they define the purpose and aspirations we want to achieve in the student at the end of the educational process.

a. To deepen the teaching of the difference between living and non-living things.
b. To guide the student in the effective differentiation of living beings according to their diet and the ecosystem where they live.
c. To show the damages that human beings can produce in the environment due to our bad actions.
d. To promote attitudes and values of care and conservation of the environment.
e. To motivate the student in the learning of contents by manufacturing materials adapted to their needs and interests.
f. To increase the communicative intention of the student in the FL.
g. To use cooperative learning as an effective teaching strategy.
h. To design appropriate teaching and assessment instruments for the needs of the child.

3.5. Contents

The Royal Decree 126/2014, of February 28th, which establish the basic curriculum of PE collect the contents students should study at that stage and define them as the set of knowledge, skills, abilities and attitudes which contribute to the achievement of the objectives of each teaching and educational stage and to the acquisition of competences.

In addition, the contents of this lesson plan correspond to the education in values and Andalusian culture, established by the Law 17/2007, of December 10, of Education of Andalusia, referred to “favor an adequate physical, mental and social well-being for the student and his classmates, respect for diversity and the care of the environment.”

In the same way, it presents contents and activities related to the natural environment of Andalusia, so that it is known, valued and respected as its own heritage and within the framework of Spanish and universal culture.

On the one hand, the subject contents of this unit are:

- Observation of different life forms of the environment.
- Classification of living and non-living things.
- Differentiation of living beings according to their diet.
- Establishment of simple food chains.
- Knowledge of the characteristics of the best-known ecosystems
- Classification of living beings according to the ecosystem where they live.
- Observation and description of different landscapes: interaction of the human being with nature.
- Identification of the relationships between the elements of the ecosystems, deterioration and regeneration factors.
- Development of habits of respect and care towards living things and ecosystems.
- Development of defense values and recovery of the ecological balance.

On the other hand, the language contents of this unit are:
VOCABULARY

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Adjectives</th>
<th>Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living thing</td>
<td>Safe</td>
<td>To destroy</td>
</tr>
<tr>
<td>Non-living thing</td>
<td>Polluted</td>
<td>To protect</td>
</tr>
<tr>
<td>Carnivore</td>
<td>Terrestrial</td>
<td>To eat</td>
</tr>
<tr>
<td>Herbivore</td>
<td>Aquatic</td>
<td>To live</td>
</tr>
<tr>
<td>Omnivore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecosystem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food chain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STRUCTURES

- Is it a living thing or a non-living thing?
- What does the __________ eat?
- Where does the __________ live?
- How can we protect/destroy our environment?

TYPE OF DISCOURSE:
- Listening
- Speaking
- Writing (with the communication notebook)

3.6. Cross-curricular issues

This lesson plan is related to the following cross-curricular issues established by the Royal Decree 126/2014, of February 28, which establishes the basic curriculum of Primary Education:

⇒ Educational inclusion and equal opportunities for all students through methodological alternatives and curricular adaptations.
⇒ Teamwork as a means for the development of autonomy and self-confidence.
⇒ Development of positive behaviors in favor of environmental care.
⇒ Appreciation and care of the natural heritage of Andalusia.

3.7. Cognitive processes

Cognitive processes we want the student to operationalize are:

⇒ To understand the vocabulary and oral questions.
⇒ To memorize the vocabulary.
⇒ To apply the knowledge learnt.
⇒ To know the difference between carnivore, herbivore and omnivore.
⇒ To recognize safe and dangerous actions for environment.
⇒ To realize the importance of protecting our environment.

3.8. Competences

These are the capacities that all people need for their fulfillment and personal development, as well as for active citizenship, social inclusion and employment. The key competences (collected in the Order ECD / 65/2015, of January 21, which describes the relationships between the competences, contents and evaluation criteria of PE, CSE and the baccalaureate) we are going to develop with this unit are:

⇒ Competence in linguistic communication
⇒ Competence in Mathematics, Science and Technology
⇒ Digital competence
⇒ Social and civic competences
⇒ Sense of initiative and entrepreneurship.

In the same way, this lesson plan contributes to the acquisition of the following L2 competences:

⇒ Writing
⇒ Oral production and interaction
⇒ Listening

3.9. Methodology

The Spanish Ministry of Education and Vocational Training defines didactic methodology as “the set of strategies, procedures and actions organized and planned by the teachers, in a conscious and reflective manner, in order to enable the students to learn and achieve the objectives set.”

The methodology which is going to be followed in the classroom with this student is based on the TEACCH method, since he has been using it from the first year of PE. The class would be decorated exclusively with necessary elements, avoiding unnecessary distractions. There would be labels with the names in English on all the objects the student usually uses. The class would be distributed in corners and the
student would change the corner depending on the activity to be performed (individual work, in pairs, games...).

All sessions would begin with the explanation to the student of all the activities that are going to be carried out throughout the session, through pictograms distributed from left to right, as well as the photos of the teachers who will take part in that session. We would name each of the activities and the student would have to point the corresponding pictogram, to ensure that the student is paying attention to us. At the end of each of the activities we would turn the pictogram so that the student knows the activity is over and the next one begins. It is important to carry out this routine on a daily basis and try to foresee any unforeseen event that may arise because the student needs a lot of routine.

Several activities would be posed in each session, trying to include cartoon videos and activities in which student has to interact with his classmates. Although it is difficult for him to work with all his classmates, we would include some activity of this type in the unit so that he could get used to it and increase his level of social interaction. Playful activities would also be programmed, because gamification is a great learning tool to increase the motivation of students, something essential with this child.

Activities would be positively reinforced when they are carried out well or, even if they are not correct, the effort made by the student. Repeating activities in which he fails would be avoided to reduce his frustration, and a free play time at the end of the session would be left to give him a break before the next work session.

Finally, it is very important to stimulate his communication so, throughout the session, it should be encouraged giving special importance to the communicative intention, using his communication notebook and avoiding attending to unwanted behaviors.

3.10. Timing

This lesson plan is going to be carried out throughout seven sessions over two weeks. The first six sessions would last 45 minutes, and they would be performed in the ordinary classroom.

The last session would be an extracurricular activity which would take place throughout a day.
3.11. Materials
To put into action this lesson plan, the new vocabulary should be added to the student's communication notebook. For this, a computer with internet connection, printer, laminator and velcro are needed.

In addition, to work in the classroom dolls of animals and plants and sheets and flashcards which represent the two types of ecosystems should be used, the same as pictures of the vocabulary is going to be worked on.

Finally, the digital board and the tablet are needed, so that the student could watch videos and develop their digital competence. The following videos are needed:

Session 1: Living Things and Nonliving Things / Living / Nonliving / Kid’s Science / 1st Grade Learning
Session 2: fragments of the films "Finding Nemo" and "The Lion King"
Session 3: Herbivore, Carnivore, Omnivore Song
Session 4: Man
Session 6: Earth Day: The Environment and our Planet in a Song for Kids! I Love to Learn with PlayKids.

3.12. Step by step account

<table>
<thead>
<tr>
<th>ROUTINE (5’)</th>
<th>SESSION 1: LIVING AND NON-LIVING THINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine</td>
<td>Session should start with the indication to the student of what is going to be done during the session, through visual material.</td>
</tr>
<tr>
<td>Introduction (10’)</td>
<td>Student would watch the video called &quot;Living Things and Non-living Things</td>
</tr>
<tr>
<td>Practice (10’)</td>
<td>Student would use dolls of animals, plants and other small inert objects to classify them as living things or non-living things in a playful way. He would sit down with a partner who would ask him &quot;Is it a living thing or a non-living thing?&quot; He would answer through his communication notebook, but then, we would try to repeat the name of the animal, plant or object and the expressions living thing or non-living thing.</td>
</tr>
</tbody>
</table>
**Production/Closure (10’)**  
Student would classify all the pictograms of animals, plants and objects as living things or non-living things. In his communication notebook he would have to place the pictograms forming sentences of two elements: animal / plant / object + living thing / non-living thing.

**Reinforcement (10’)**  
Student would play with his favourite doll during the last minutes of the class as a positive reinforcement for having worked well.

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### SESSION 2: ECOSYSTEMS

| Routine (5’ | Session should start with the indication to the student of what is going to be done during the session, through visual material. |
| Introduction (10’ | Student would watch a fragment of the films "Finding Nemo" and "The Lion King", in which different animals can be seen. |
| Practice (10’ | Two sheets with a landscape of each of the films student has watched should be given to him. In addition, he would have stickers with pictures of all the characters who have appeared in the films. He would have to stick each sticker on the correct landscape while a partner asks him “Where does the ________ live?” |
| Production/Closure (10’ | Student would have to make sentences of two elements with his communication notebook. Teacher would ask him about the pictograms he has of animals and plants “Where does the ________ live?” And student has to answer with the structure noun + terrestrial/aquatic. Teacher would try he repeats the sentences. |
| Reinforcement (10’ | Student would play with his favourite doll during the last minutes of the class as a positive reinforcement for having worked well. |

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### SESSION 3: CARNIVORES, HERBIVORES AND OMNIVORES

| Routine (5’ | Session should start with the indication to the student of what is going to be done during the session, through visual material. |
| **Introduction (10’)** | Student would watch the video called "Herbivore, Carnivore, Omnivore Song" from YouTube. Afterwards, teacher would show him flashcards of the animals which appear in the video so that he could classify them into three groups depending on their diet. Teacher would name the types of animals in each case. |
| **Practice (10’)** | With the help of a partner, student would have to establish relations between the animals of the pictograms he has, according to their feeding. This is, to compose food chains between two and five elements. |
| **Production/ Closure (10’)** | Student would have to make sentences of three elements with his communication notebook. Teacher would ask him about the pictograms he has of animals “What does the ________ eat?” And student has to answer with the structure noun + eat + herbivorous/carnivorous/omnivorous. Teacher would try he repeats the sentences. |
| **Reinforcement (10’)** | Student would play with his favourite doll during the last minutes of the class as a positive reinforcement for having worked well. |

| **SESSION 4: TAKING CARE OF THE ENVIRONMENT** |
| **Routine (5’)** | Session should start with the indication to the student of what is going to be done during the session, through visual material. |
| **Introduction (5’)** | All students of the group will watch the video called "Man" from YouTube. |
| **Practice (15’)** | All the students would dialogue about which human actions destroy the environment and what can be done to protect it. Teacher would continuously get the student attention so that he forms part of the dialogue, showing him images of actions that he should express if they correspond to destroy or protect. |
| **Production/ Closure (10’)** | Student would have to make sentences of two elements with his communication notebook. Teacher would ask him about the pictograms he has of human actions “How can we protect/destroy our environment?” And student has to answer with the structure action + destroy/protect. Teacher would try he repeats the |
Reinforcement (10’): Student would play with his favourite doll during the last minutes of the class as a positive reinforcement for having worked well.

SESSION 5: TAKING CARE OF THE ENVIRONMENT

Routine (5’): Session should start with the indication to the student of what is going to be done during the session, through visual material.

Production/Closure (30’): In pairs, they have to look for photos on the internet about different landscapes and make a PowerPoint presentation classifying them as safe or protect.

Reinforcement (10’): Student would play with his favourite doll during the last minutes of the class as a positive reinforcement for having worked well.

SESSION 6: PLAYING WITH THE CONTENTS

Routine (5’): Session should start with the indication to the student of what is going to be done during the session, through visual material.

Introduction (5’): Student would watch the video called "Earth Day: The Environment and our Planet in a Song for Kids! I Love to Learn with PlayKids" from YouTube.

Production (20’): Student would have to take an animal doll from a bag without seen it and a partner will ask him one of this two questions: “Where does the _________ live?” or “What does the _________ eat?” and student would have to answer correctly. If he is right, he can keep the doll to play with it at the end of the class.

To play this game, all the students of the group would participate. Each time student takes a doll, one of his classmates would ask him the question.

Reinforcement (15’): Student would play with his favourite doll during the last minutes of the class as a positive reinforcement for having worked well.

SESSION 7: ENJOYING OUR ENVIRONMENT
Students would go on a trip to the Despeñaperros Natural Park, where they would enjoy its fauna and flora and apply the acquired contents, classifying the animals and plants they see. Special attention should be paid to the care of the area during the visit and each child would finish the trip planting a tree.

### 3.13. Assessment

The Royal Decree 126/2014 specifies that the instruments and evaluation procedures must specify what the student must know, understand and know how to do; they must be observable, measurable and evaluable and allow to graduate the achievement reached. Based on these requirements, to evaluate this lesson plan a rubric to assess student’s learning should be used (appendix 1) which contains the learning indicators of the unit and a gradation of learning on a scale of 1 to 5. With this rubric, teachers and family may have an objective information on the level of knowledge the student has of each of the indicators.

The assessment criteria for this unit are:

1. Know and use simple classification guidelines that identify the living beings which compose an ecosystem, knowing the relations which are established between them, acquiring values of responsibility and respect for the environment.
2. Obtain information from different sources and raise possible hypotheses about facts and natural phenomena observed directly and indirectly. Express these results with the communication notebook.
3. Identify the actions that human beings carry out in their daily life, before natural resources, energy sources, the respect towards other living beings, the fulfillment of the norms of coexistence, promoting individual behaviors which favor a good conservation of the environment and the elements that compose it.
4. Express his knowledge, wishes and ideas in the FL.

The assessment indicators for this unit are:

1.1. Student differences between living (animals and plants) and non-living things.
1.2. Student classifies animals according to their diet in carnivores, herbivores
and omnivores.
1.3. Student knows the two main types of ecosystems (terrestrial and aquatic) and classify the animals which live in them.
1.4. Student orders food chains of up to five items.
2.1. Student classifies the actions performed daily by human beings as safe or polluted.
3.1. Student manifests values of responsibility and respect towards the environment in his daily life.
3.2. Student shows behaviors which are active in the conservation, respect and care of living beings and their habitat.
4.1. Student understands the questions related to the unit, which are asked in the L2.
4.2. Student answers the questions, which are asked in the L2, with the help of his communication notebook.
4.3. Student repeats the words included in the vocabulary of the unit.

In addition to the assessment of student’s learning, a rubric for the evaluation of the teacher’s performance should be used (Appendix 2). The teaching evaluation indicators are:

1. The student has reached all the objectives of the lesson plan in an appropriate manner.
2. The chosen evaluation system allows teacher and the family to know in an objective way the knowledge acquired by the student.
3. The materials used have been sufficient, varied and adequate to meet the needs of the students.
4. The activities carried out and the resources used have been motivating for the student.
5. The proposed timing has been adequate.
6. L2 has been used to communicate with the student.

4. A HOPEFUL LOOK TOWARDS THE FUTURE

Adibe project should be mentioned in this section. It is an enterprise which began in September 2018 and it is carried out by six English philology teachers from the
University of Jaen along with teachers from other European countries with the intention of making bilingual education a greater inclusive reality for all.

The main objective is to provide CLIL teachers with resources and training to support diversity in bilingual teaching, so it enables CLIL practitioners to address diversity in their classrooms.

It is aimed at CSE teachers who want to participate, so that together they create a bank of resources on the Internet which facilitates the attention of all students’ needs.

It is a very positive and beneficial initiative for the development of CLIL approach and its implementation in the classroom. However, in the future the project should be extended to teachers of Infant and Primary Education, because in lower levels it is even more important to adequately attend to the diversity because in those ages it is when the child learn more quickly, especially when a FL is been learnt.

Initiatives of this type indicate there are experts really concerned about the correct teaching of FL, and there should be more universities which follow their example, to create a great network of resources for attention to diversity in CLIL.

5. CONCLUSIONS

Attention to diversity and inclusion are two phenomena on the rise in society in general and in education in particular. However, the research carried out has revealed the need to investigate the influence they have on the different methodologies which are emerging in recent years, among which is the CLIL approach. The principles of CLIL are great, but there is still a long way to go so that the teaching of the L2 in Spain contributes to the students being really bilingual.

On the one hand, it is necessary a greater investment in research on the subject, which addresses the difficulties that any teacher will encounter in a classroom because, nowadays, there is no heterogeneous group of students, but an adequate attention to diversity has been become an essential principle to achieve a quality education.

On the other hand, it is also very necessary to train teachers in new methodologies such as gamification, which can attract the motivation of students as well as training in the care of students with special educational needs, since in many cases, it is necessary apply a type of teaching for which teachers are not prepared, which leads to the test of different types of activities by trial and error, whose most
likely consequence is the lack of development of communicative competence of students in the FL, their frustration and the lack of self-esteem and motivation.

In addition to methodology, specific training of teachers is needed in the main special educational needs that can be found in the classrooms or, at least, provide training when we arrive at a school with students with a disability such as autism, treated in this work, because each of the diagnoses has a different treatment and there are a lot of teachers who denounce this lack of training, counselling and help from the teachers’ centers.

In summary, CLIL is the best approach that has been created so far for teaching a FL, but many other elements are necessary to complement this approach so that students and teachers could really take advantage of all its potential.

To conclude, a glimpse of hope thanks should be outstanding to the knowledge of initiatives such as Adobe Project, explained in the previous section, which make think there are really experts involved in improving attention to diversity in bilingual education. More institutions should be encouraged to dedicate their resources to fight for the achievement of quality education for all students.

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### 7. APPENDICES

#### 7.1. Content and language student’s learning rubric

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th><strong>5 EXCELLENT</strong></th>
<th><strong>4 GOOD</strong></th>
<th><strong>3 SATISFACTORY</strong></th>
<th><strong>2 ALMOST SATISFACTORY</strong></th>
<th><strong>1 UNSATISFACTORY</strong></th>
<th><strong>SCORE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student differences between living (animals and plants) and non-living</td>
<td>Student always differences between living (animals and plants) and non-living</td>
<td>Student always differences between living and non-living things at least</td>
<td>Student always differences animals from non-living things.</td>
<td>Student ever identifies living or non-living things.</td>
<td>Student does not difference between living and non-living things.</td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>things.</td>
<td>things.</td>
<td>half of the time.</td>
<td></td>
<td></td>
<td></td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>Student classifies animals according to their diet in carnivores, herbivores and omnivores.</td>
<td>Student always classifies animals according to their diet.</td>
<td>Student almost always classifies animals according to their diet.</td>
<td>Student classifies animals according to their diet half of the time.</td>
<td>Student rarely classifies animals according to their diet.</td>
<td>Student does not classify animals according to their diet.</td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>Student knows the two main types of ecosystems (terrestrial and aquatic)</td>
<td>Student always knows the two main types of ecosystems and classify the animals which live in them</td>
<td>Student knows the two main types of ecosystems but sometimes classify incorrectly the animals which live in them.</td>
<td>Student knows the two main types of ecosystems and sometimes classify the animals which live in them.</td>
<td>Student knows the two main types of ecosystems but does not classify the animals which live in them.</td>
<td>Student does not know the two main types of ecosystems.</td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>and classify the animals which live in them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>Student orders food chains of up to 5 items.</td>
<td>Student orders food chains of up to 5 items.</td>
<td>Student orders food chains of up to 2 items.</td>
<td>Student orders food chains of up to 3 items.</td>
<td>Student orders food chains of up to 2 items.</td>
<td>Student does not order food chains.</td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>Student classifies the actions performed daily by human beings as safe or</td>
<td>Student always classifies the actions performed daily by human beings.</td>
<td>Student most of the time classifies the actions performed daily by human beings.</td>
<td>Student classifies the actions performed daily by human beings half of the time.</td>
<td>Student rarely classifies the actions performed daily by human beings.</td>
<td>Student does not classify the actions performed daily by human beings.</td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>polluted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>SCORE</strong></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>Student manifests values of responsibility and respect towards the</td>
<td>Student always manifests values of responsibility and respect towards the</td>
<td>Student usually manifests values of responsibility and respect towards the</td>
<td>Student rarely manifests values of responsibility and respect towards the</td>
<td>Student never manifests values of responsibility and respect towards the</td>
<td>Student never manifests values of responsibility and respect towards the</td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>environment in his daily life.</td>
<td>environment.</td>
<td>environment.</td>
<td>environment.</td>
<td>environment.</td>
<td>environment.</td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td>Student shows behaviors which are active in the</td>
<td>Student always shows behaviors which are active in the</td>
<td>Student usually shows behaviors which are active in the</td>
<td>Student sometimes shows behaviors which are active in the</td>
<td>Student rarely shows behaviors which are active in the</td>
<td>Student never shows behaviors which are active in the</td>
<td><strong>SCORE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>SCORE</strong></td>
</tr>
</tbody>
</table>

48
<table>
<thead>
<tr>
<th>USE OF LANGUAGE</th>
<th>conservation, respect and care of living beings and their habitat</th>
<th>conservation, respect and care of living beings and their habitat</th>
<th>conservation, respect and care of living beings and their habitat</th>
<th>conservation, respect and care of living beings and their habitat</th>
<th>conservation, respect and care of living beings and their habitat</th>
<th>conservation, respect and care of living beings and their habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speaking:</strong></td>
<td>Student always repeats the words included in the vocabulary of the unit.</td>
<td>Student usually repeats the words included in the vocabulary of the unit.</td>
<td>Student sometimes repeats the words included in the vocabulary of the unit.</td>
<td>Student rarely repeats the words included in the vocabulary of the unit.</td>
<td>Student does not repeat the words included in the vocabulary of the unit.</td>
<td>Student does not repeat the words included in the vocabulary of the unit.</td>
</tr>
<tr>
<td><strong>Listening:</strong></td>
<td>Student understands the questions related to the unit, which are asked in the L2.</td>
<td>Student responds to all oral directions in L2.</td>
<td>Student responds to most oral directions in L2, after they have been repeated.</td>
<td>Student rarely responds to oral directions in L2, although they have been repeated.</td>
<td>Student never responds to oral directions in L2.</td>
<td>Student never responds to oral directions in L2.</td>
</tr>
<tr>
<td><strong>Writing:</strong></td>
<td>Student answers the questions, which are asked in the L2, with the help of his communication notebook.</td>
<td>Student always answers the questions, which are asked in the L2.</td>
<td>Student usually answers the questions, which are asked in the L2.</td>
<td>Student sometimes answers the questions, which are asked in the L2.</td>
<td>Student rarely answers the questions, which are asked in the L2.</td>
<td>Student does not answer the questions, which are asked in the L2.</td>
</tr>
</tbody>
</table>
### 7.2. Teaching process rubric

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>5 EXCELLENT</th>
<th>4 GOOD</th>
<th>3 SATISFACTORY</th>
<th>2 ALMOST SATISFACTORY</th>
<th>1 UNSATISFACTORY</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student has reached all the objectives of the lesson plan in an appropriate manner.</td>
<td>Student has reached 7-8 objectives.</td>
<td>Student has reached 5-6 objectives.</td>
<td>Student has reached 3-4 objectives.</td>
<td>Student has reached 1-2 objectives.</td>
<td>Student has not reached any of the objectives.</td>
<td></td>
</tr>
<tr>
<td>The chosen evaluation system allows teacher and family to know in an objective way the knowledge acquired by the student.</td>
<td>The chosen evaluation system allows teacher and family to know in an objective way the knowledge acquired by the student.</td>
<td>The chosen evaluation system allows teacher and family to know the knowledge acquired by the student.</td>
<td>The chosen evaluation system allows teacher but not the family to know in an objective way the knowledge acquired by the student.</td>
<td>The chosen evaluation system allows teacher to know in a subjective way the knowledge acquired by the student.</td>
<td>The chosen evaluation system does not allow neither teacher nor the family to know the knowledge acquired by the student.</td>
<td></td>
</tr>
<tr>
<td>The materials used have been sufficient, varied and adequate to meet the needs of the students.</td>
<td>All the materials used have been sufficient, varied and adequate to meet the needs of the students.</td>
<td>The materials used have been sufficient, and adequate to meet the needs of the students but not varied.</td>
<td>The materials used have been adequate but not sufficient or varied.</td>
<td>The materials used have been sufficient, but not varied or adequate.</td>
<td>The materials used have not been sufficient, varied or adequate.</td>
<td></td>
</tr>
<tr>
<td>The activities carried out and the resources I have used have been motivating for the student.</td>
<td>All the activities carried out and the resources I have used have been motivating for the student.</td>
<td>Almost all the activities carried out and the resources I have used have been motivating for the student.</td>
<td>Half of the activities carried out and the resources I have used have been motivating for the student.</td>
<td>Some activities carried out and the resources I have used have been motivating for the student.</td>
<td>No activities carried out and the resources I have used have been motivating for the student.</td>
<td></td>
</tr>
<tr>
<td>The proposed timing has been adequate.</td>
<td>The proposed timing has been adequate all the sessions.</td>
<td>The proposed timing has been adequate 4-5 sessions.</td>
<td>The proposed timing has been adequate 2-3 sessions.</td>
<td>The proposed timing has been adequate 1 session.</td>
<td>The timing has not been adequate any sessions.</td>
<td></td>
</tr>
<tr>
<td>L2 has been used to communicate with the student.</td>
<td>Teacher has always communicated with the student in L2.</td>
<td>Teacher has communicated with the student in L2 most of the time.</td>
<td>Teacher has communicated with the student in L2 half of the time.</td>
<td>Sometimes, teacher has communicated with the student in L2.</td>
<td>Teacher has never communicated with the student in L2.</td>
<td></td>
</tr>
</tbody>
</table>